HEWLETT-PACKARD

The PORTABLE

It's a personal computer.

Only smaller.

Neat, isn't it?

It's as powerful as any personal computer that ever sat on a desk.

Except that this personal computer sits on your lap.

At just a tad under nine pounds, it's light enough to be taken anywhere.

But that doesn't mean it should be taken lightly.

Because we give you about nine hundred dollars worth of serious business software. Not just thrown in. Actually *built in.*

Popular 1-2-3™ from Lotus™ for file management, spreadsheets, and graphics. MemoMaker for quick and simple word processing. Plus communications software—even a modem—when you want to transfer information.

The unique Personal Applications Manager eliminates the need to learn complicated commands and makes computer operation as simple as choosing from a menu. And the MS™-DOS (2.11) operating system provides industry-standard compatibility for access to dozens of optional application programs. Just add our battery-powered disc drive.

To make things even easier, help messages—on-screen sets of instructions—can guide you through a program. So you won't have to lug 10 pounds of manuals around with a nine-pound computer.

Which is impressive. But try this on for size:

With its true 16-bit microprocessor, The PORTABLE from Hewlett-Packard runs software up to twice as fast as an IBM PC.

Twice.

You may want to let all that sink in for a minute, so continue when you're ready. But by all means, continue. It gets better.

It also has more than twice as much standard memory—272 Kbytes—as most desktop computers. So you'll have plenty of room to spread out a spreadsheet, or give your data due processing.

The PORTABLE's peripherals are just as amazing. And just as easy to carry. So you can add a 3½-inch, high-capacity microfloppy disc drive and the whisper-quiet ThinkJet Printer. Each 5½-pounds light. Each battery operated. The *entire system* weighs less than most so-called "portables" that don't include printers.

Some day most personal computers will be designed this way.

But for now, the *only* personal computer that's designed this way is this one.
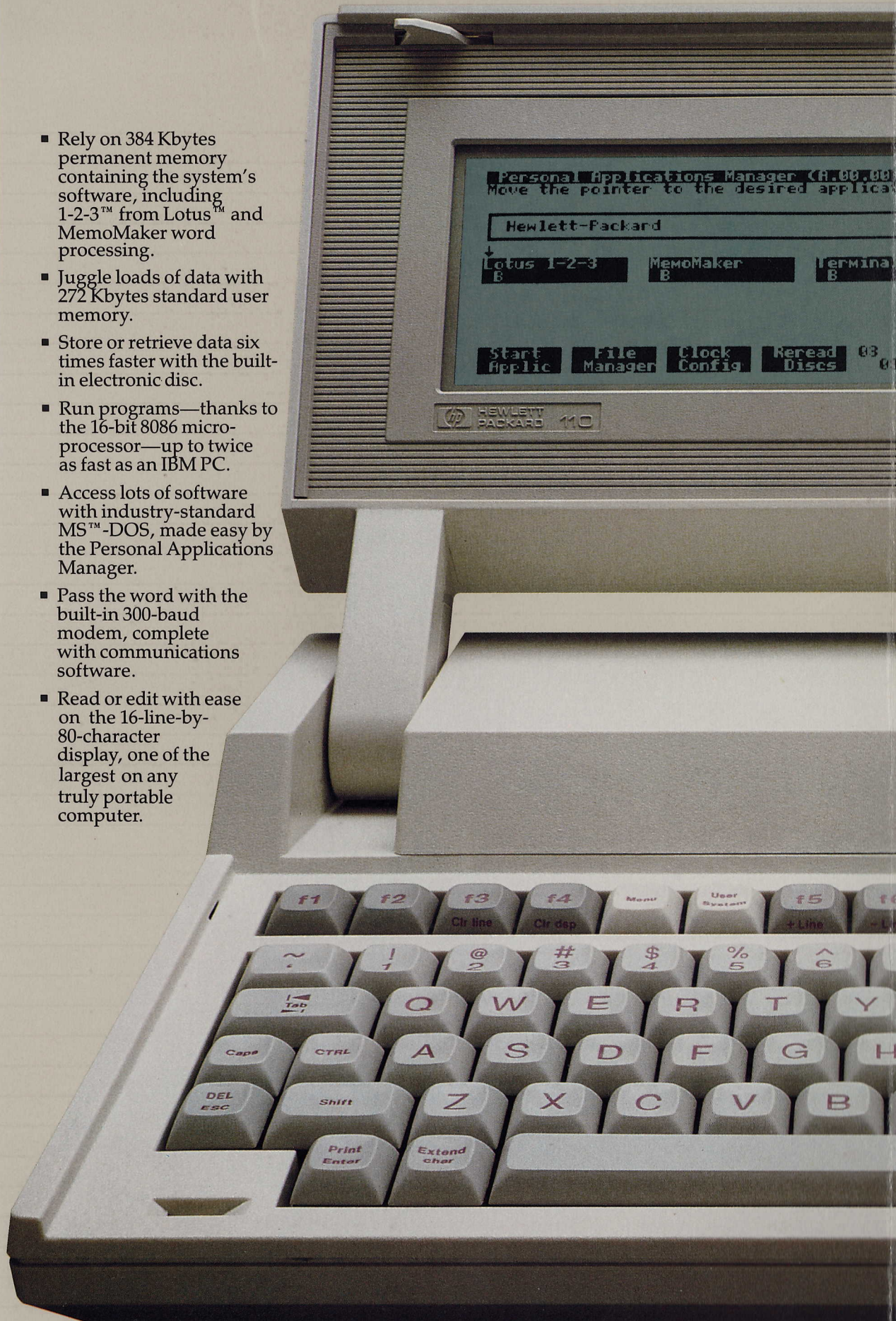
The PORTABLE from Hewlett-Packard.

The powerful, all-around personal computer. It just happens to be portable.

MEET The PORTABLE.

- Rely on 384 Kbytes permanent memory containing the system's software, including 1-2-3™ from Lotus™ and MemoMaker word processing.

- Juggle loads of data with 272 Kbytes standard user memory.

- Store or retrieve data six times faster with the built-in electronic disc.

- Run programs—thanks to the 16-bit 8086 micro-processor—up to twice as fast as an IBM PC.

- Access lots of software with industry-standard MS™-DOS, made easy by the Personal Applications Manager.

- Pass the word with the built-in 300-baud modem, complete with communications software.

- Read or edit with ease on the 16-line-by-80-character display, one of the largest on any truly portable computer.

On-screen text (partially visible):

```
       Main      72704 bytes free on A:
ion, then press Start Applic.

          Battery: 96%      2/27/1984

          DOS Commands
          B

 01  Datacom  System
:05  Config   Config    Help    Off
```

- Compute on the run with rechargeable batteries giving twice the battery life of any other 16-bit portable.

- Keep your work in a safe place, thanks to automatic memory protection. Keep tabs on how much juice you've got with the battery monitor.

- Put in a plug for yourself with the AC power cord/ recharger.

- Hook up to standard peripherals through the RS-232C serial interface.

- Hook up to portable Hewlett-Packard peripherals through the HP-IL serial interface.

- Go ahead, take it along— this is the actual size, and it weighs under nine pounds.

Work where you want, when you want.

The PORTABLE was made for people who don't sit still.

Which makes it perfect for most people.

So whether you're working across the hall or across the country, you now have a perfect traveling companion.

The PORTABLE from Hewlett-Packard.

How's this for convenience?

While most so-called "portables" could easily pass for a sewing machine —picked up one of those lately?— The PORTABLE is about the size of a notebook binder. 10" x 13" x 3".

With all the above, plus rechargeable batteries that give you up to two weeks of normal use on the road, it's the most powerful portable computer you can buy.

Also the most ingenious.

Say you're working with The PORTABLE, and you stop for a moment. If you don't touch the keys again within five minutes, it will go to sleep.
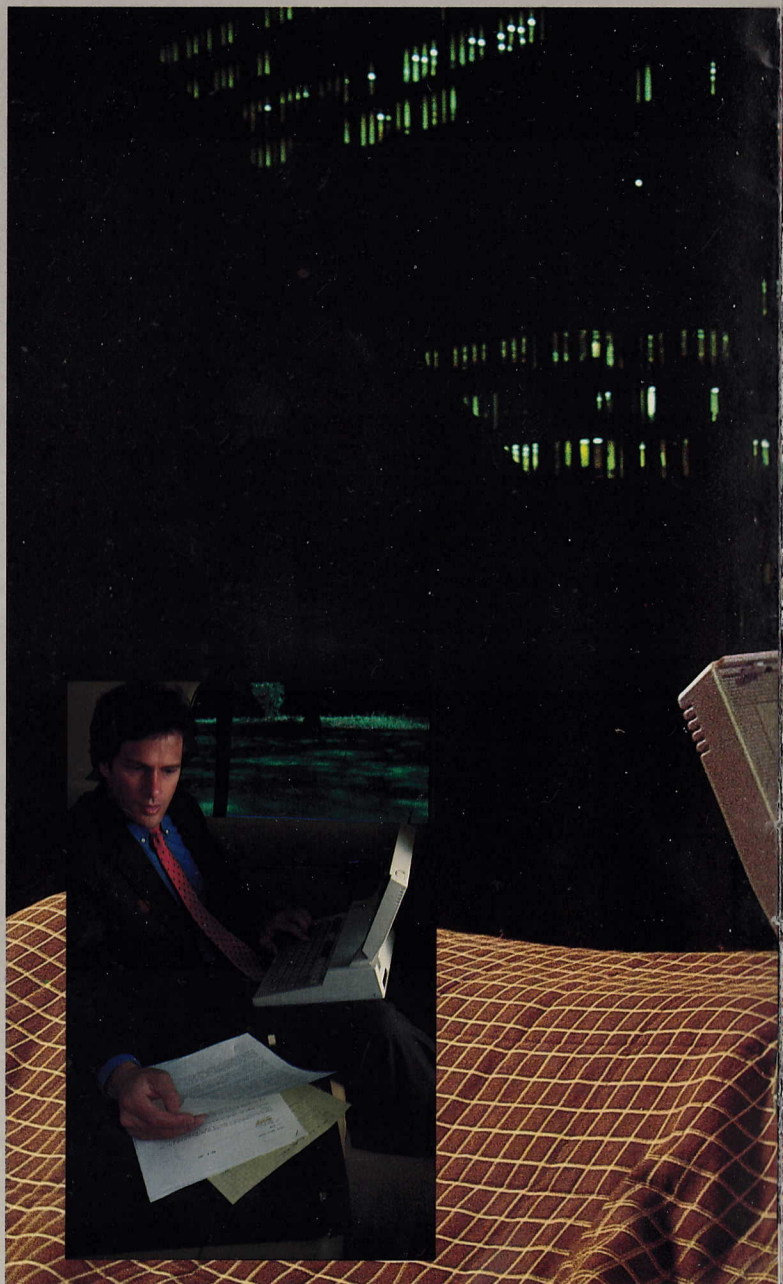
The screen shuts off. But the computer is just resting. Conserving its battery power.

Then just touch a key (any key will do), and The PORTABLE wakes up right where you left off.

The batteries are unique. They spend their energy at an even rate so power doesn't drop off suddenly— unlike most other portable computer battery systems. There's even a battery monitor that tells you how much power you have.

At 20 percent, you're reminded to recharge your batteries. When you get down to 5 percent, though, the system locks you out. For your own good. This way The PORTABLE still has enough power to keep your work intact. And you have several weeks to recharge it before you'd lose any information.

Any time you're near an electric outlet, you can plug in The PORTABLE with the AC power cord. Use it and recharge it at the same time.

▲
Make every second count when you're on the way to a presentation.

Communicate with the modem
when you write home to say
your trip has been successful.
▼

◄ Call up facts from your
portable library when people
need information.

It comes alive the moment you touch it.

Try it. Flip up the screen and touch a key.

The PORTABLE comes alive. Instantly. The built-in software ready to run.

Fast.

Now load a program and get to work in just five seconds—ten times faster than with conventional personal computers.

Besides, why not get what you want—*now*?

But instant gratification is only half the story.

The other half is software.

And what software!

We've got the only battery-powered portable that comes standard with 1-2-3 from Lotus.

Does it ever.

The graphics fly. The recalculation time makes you blink with surprise. There's even the interactive 1-2-3™ Electronic Tutor that makes it easy for you to get up to speed.

The same goes for The PORTABLE's word processing program, MemoMaker. It's so simple! No complicated commands to remember. Reformat a paragraph or center a line just by pressing a key.

Because the software is built into permanent memory, virtually all user memory is available for doing a spreadsheet or editing text. You've got about twice as much work space as conventional PCs that run programs from a disc drive.

The built-in communications software combined with the modem, and the RS-232C interface make it easy to access other computers.

Should you want to exchange information with an HP 150 Touchscreen Personal Computer—or an IBM PC— The Portable-Desktop Link option makes it easy. Even exchange 3½-inch microfloppies using an HP 9114A disc drive. You can work on your 1-2-3 files in the field, and edit them at your leisure on your desktop computer back at the office.

Or perhaps you'd like to link up with and transfer files to an HP mini-computer, an IBM mainframe computer, or data bases such as The Source℠ and

Dow Jones News/Retrieval™. Or for that matter, link up with another PORTABLE owner.
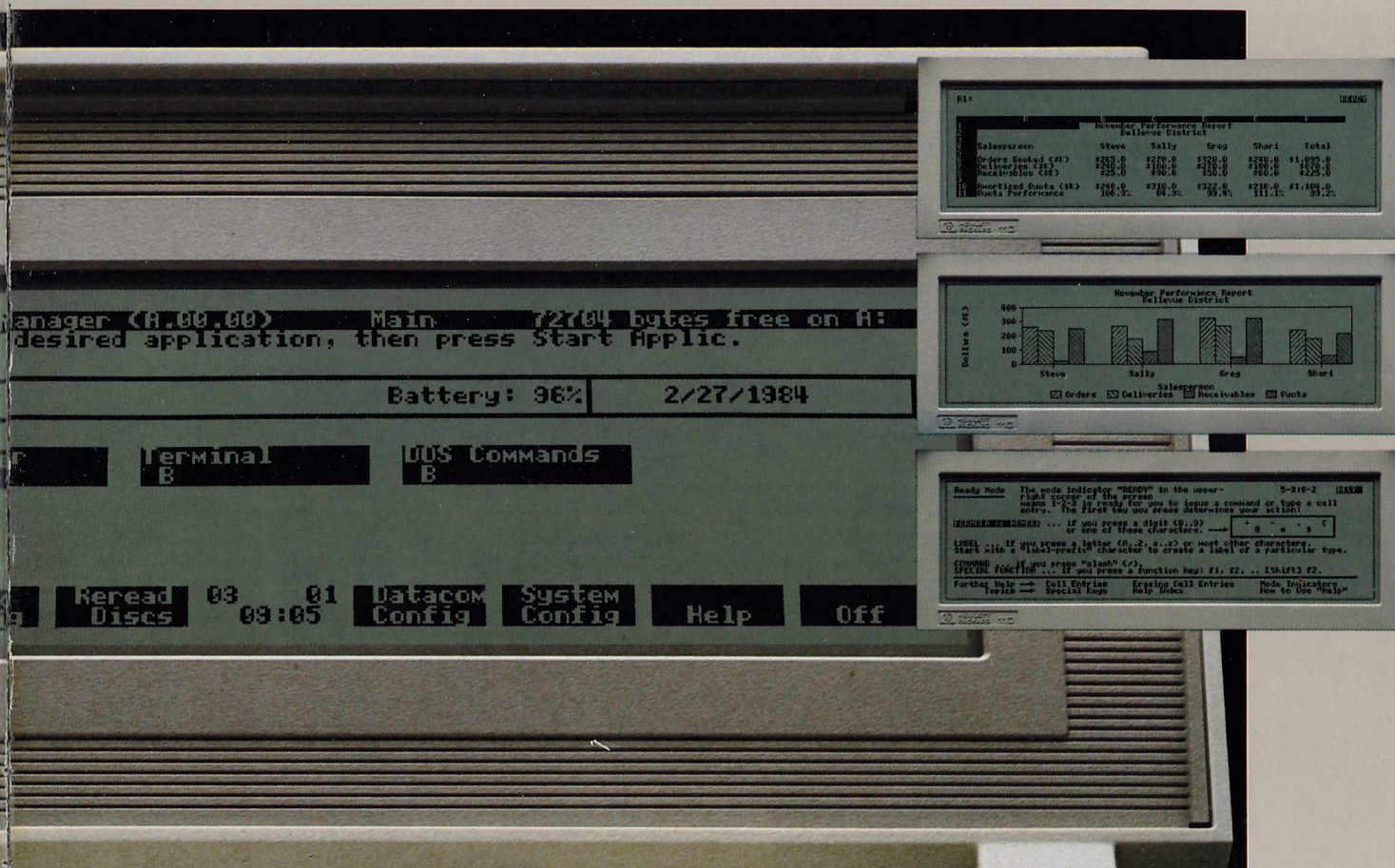
You can do all of the above and more, because The PORTABLE's built-in terminal works with either the direct serial interface or the modem.

Then there's the Personal Application Manager (P.A.M. for short). Like P.A.M. on the HP Touchscreen Personal Computer, P.A.M. on The PORTABLE makes routine housekeeping chores like copying files, formatting discs, and reading directories a breeze. P.A.M. does it all with special function keys that eliminate the need to memorize commands. And P.A.M. provides the date, time, and remaining memory and battery life to boot.

So there you have it. The software that comes with The PORTABLE. You may never need any more. But just in case...

The Personal Applications Manager makes it easy to tell The PORTABLE what to do.
▼

Give your competition the old 1, 2, 3 with 1-2-3™ from Lotus™—with data management, spreadsheets (inset screen, top), graphics (middle), and help (bottom) should you need it.
▼

Check out all the programs in the HP software library

Since The PORTABLE system is as powerful as a desktop computer, it makes sense that it should run software that's just as powerful.

And it does.

So you can pick up industry-standard, bona fide, application software for The PORTABLE with the assurance that what you're getting is the real thing. Here are some of the applications available this summer:
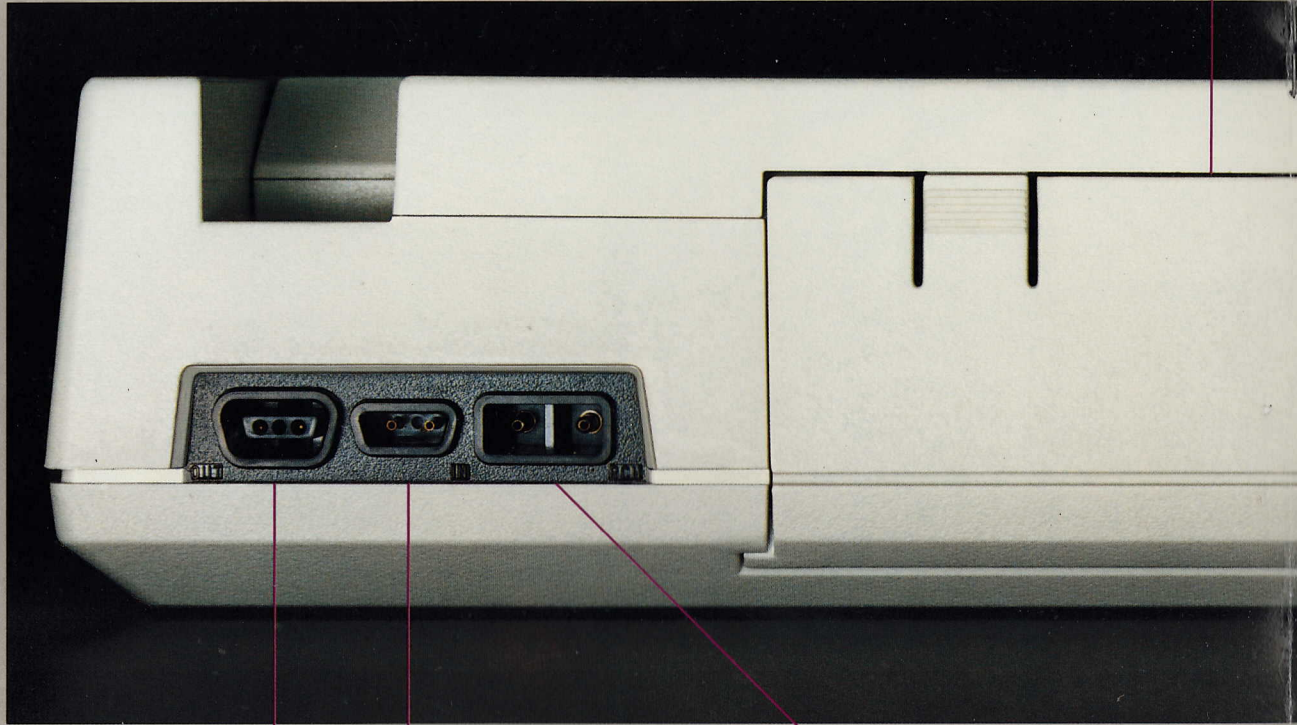
- **Microplan**™ helps you make informed financial decisions.
- **WordStar**® and **Microsoft**® **Word**™ provide total text control.
- **dBASE II**™ offers powerful data base management.
- **Series 100/BASIC,** and **Pascal** and **FORTRAN** from Microsoft® give you programming power.
- **Microsoft**® **Chart**™ makes boardroom-quality graphics available for enhancing your presentations.
- **Zork**® **I-III,** the popular games, open the door to the Great Underground Empire. Escape—if you can— with your life and the 20 treasures of Zork.
- And there's much, much more!
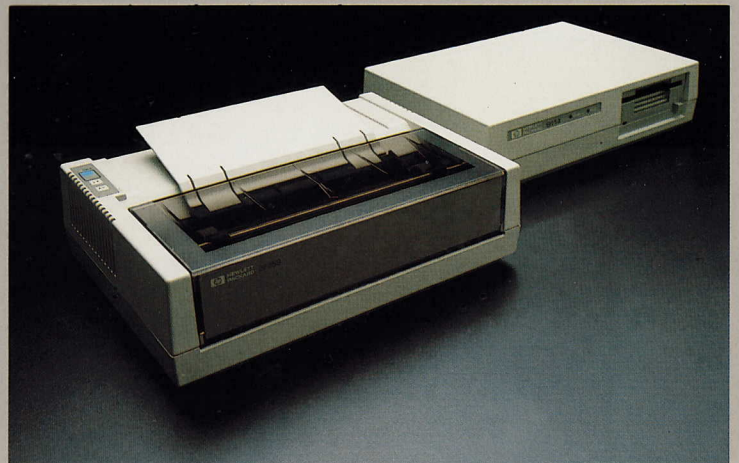
How the well connected get that way.
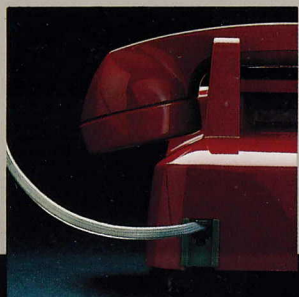
Battery access door

HP-IL

Recharger

Use HP-IL for a quick and easy connection to battery-powered peripherals such as the HP 9114A microfloppy disc drive or the ThinkJet Printer. HP-IL is highly efficient and can support up to 30 peripherals at once. Even tie in with the HP 150 or IBM PC using the Portable-Desktop Link.
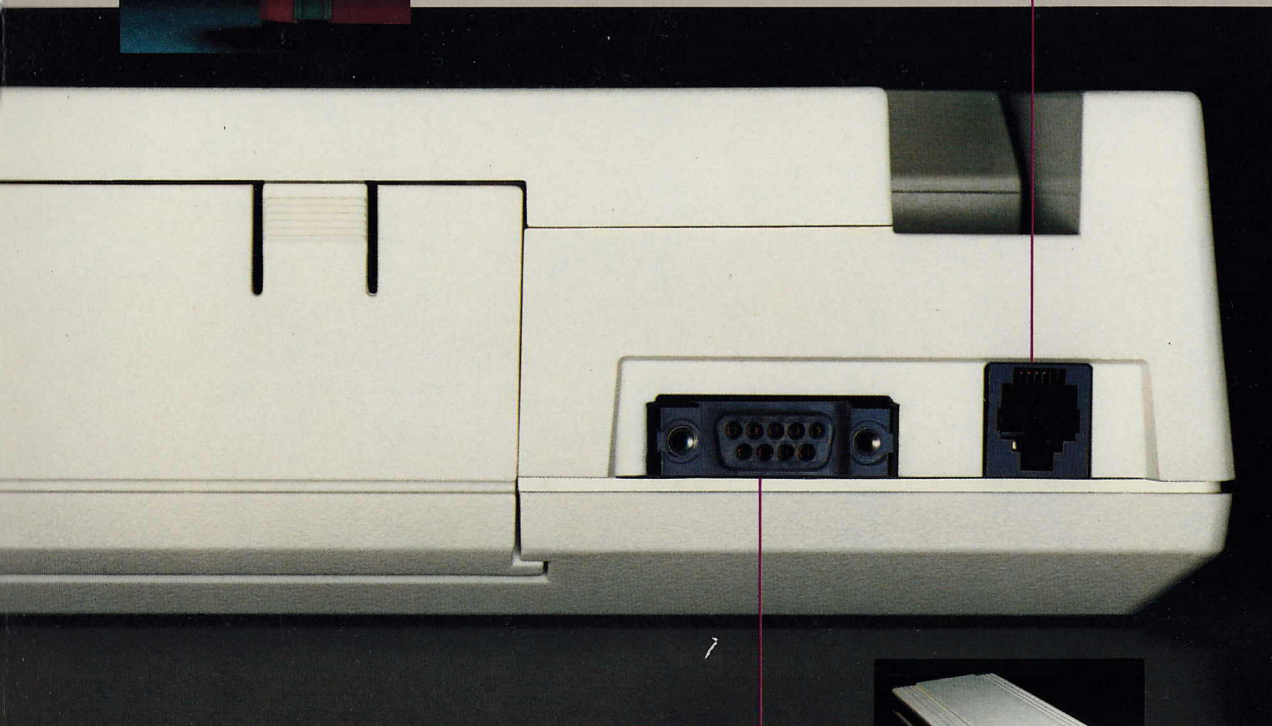
▲
The ThinkJet Printer and HP 9114A 3½-inch Microfloppy Disc Drive

Here's where you plug into our built-in, 300-baud modem. Use an ordinary phone jack. Make the connection, and you can tie into commercial data bases or similarly equipped personal computers. No matter what you link up with, though, the auto-answer/auto-dial feature makes it easy.
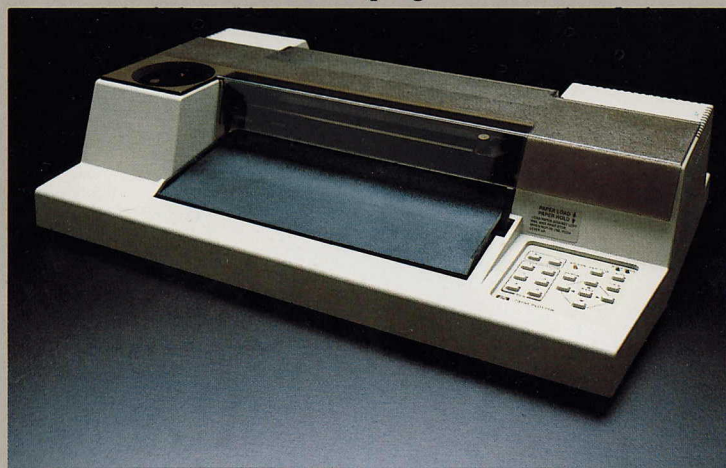
Modem

RS-232C

Hayes Smartmodem 1200

The industry-standard RS-232C interface puts you in touch with our LaserJet Professional PC printer, plotters, high-speed modems, or other computers. In fact, along with the built-in modem, it's a perfect match for The PORTABLE's terminal program.

HP Graphics Six-pen Plotter

How we squeezed an entire personal computer into a portable package.

This isn't the place to go into technical details. But we know you're interested in how the advanced technology built into The PORTABLE translates into real value for you.

We started with parts made by a process called *CMOS*. Parts made this way require very little power to run, including the soul of this new machine, a powerful 16-bit 8086 microprocessor. So we were able to combine the usually mutually exclusive qualities of speed and low-power operation.

And rather than build in a floppy disc drive making our PORTABLE less portable, we used a high-speed electronic disc. So you get the advantage of safe, fast data storage without the disadvantages of increased size and short battery life. And don't forget, we offer the equally portable HP 9114A microfloppy disc drive if you want to run optional software.

As a member of Hewlett-Packard's family of personal computers, The PORTABLE could be no less than innovative. It follows in the footsteps of the HP 150 Touchscreen Personal Computer. And after all, we wrote the book on small and powerful. Our financial and scientific calculators have long set the standards for the industry.

Our Touchscreen sets you free to use your personal computer more productively. The PORTABLE gives you the freedom to take PC power wherever you go.

And that's exactly what a portable computer is supposed to do.

Pack up your office and take it with you when you're ready to hit the road. A tour de force.
▼

◀ *The soul of this new machine—
the 16-bit 8086 microprocessor.*

You really *can* take it with you.

The 710-Kbyte (formatted), 3½-inch HP 9114A disc drive is small enough to fit in a briefcase, but stores a whopping amount of data. Each double-sided disc holds about 175 pages of single-spaced text. Or a payroll for up to 1,400 employees. Or the equivalent of the telephone white pages for a small town.

In short, with the 3½-inch disc, you can carry a drawer-full of files in your shirt pocket!

The disc drive weighs about 5½ pounds, and provides 8–12 hours of battery operation on a single charge.
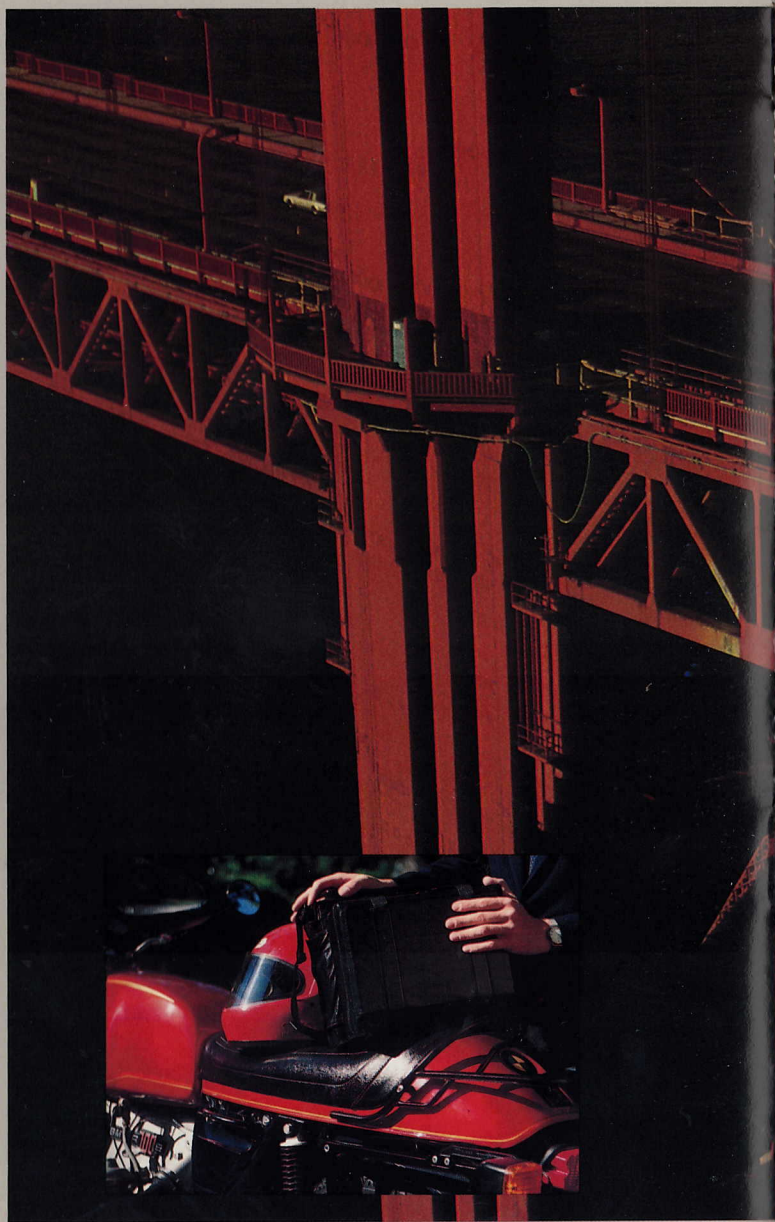
It's a safe bet that in the very near future, *most* disc drives for personal computers will use the 3½-inch microfloppy disc. HP PCs *already* do. The 3½-inch disc offers greater storage capacity and higher reliability than the 5¼-inch.

The hard-case discs keep your data safe by preventing contamination from fingerprints, dust, and damage from handling. A Media Protection System even tells you when you need to replace worn discs.

And then there's ThinkJet, the amazing Personal Printer from Hewlett-Packard. A printer for your thoughts. It prints 150 characters a second. That's a page a minute. So you could print the Declaration of Independence in just 90 seconds.
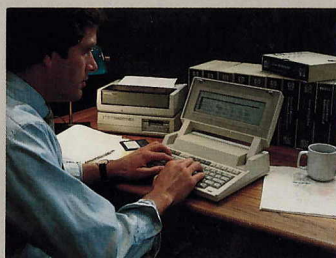
ThinkJet sprays ink through the printhead onto the paper. Since the printhead never touches the paper, there is no impact noise. The whole print mechanism is contained in a small, disposable cartridge that snaps simply into place. No mess, no fuss.

With graphics, underlining, and boldface capabilities. It's affordable printing in a 5½-pound, battery-powered package.

▲
The entire system fits in one compact, easily carried package.

On the road to gain: Anywhere
it can go, you can go better.
▼

◄ System to Go: The PORTABLE;
the 3½-inch, 710-Kbyte
microfloppy disc drive; and
the fast, quiet ThinkJet
Printer provide a complete
system solution.

From Hewlett-Packard. It figures.

Making a portable is quite a bit more than merely attaching a handle to your latest desktop computer and letting it go at that.

Certainly, if we had just set out to make a smaller computer, that would have been relatively easy.

Instead, we took the time to talk to people like yourself. We found that most customers wanted a computer that fit their lifestyle; not a lifestyle that fit their computer.

So when we designed The PORTABLE, we set out to see how convenient a computer could be.

How functional. How powerful.

And to connect it all in one compact, lightweight package that would give you more freedom, more capability, more value.

We're quite pleased with The PORTABLE.

We think you will be, too.

Searching for excellence?

All you need to do is ask. Call toll-free (800) FOR-HPPC for further information and the location of your local, authorized Hewlett-Packard dealer.

And to make sure you get the most out of The PORTABLE, we give you another toll-free number with your purchase, providing access to a telephone network for assistance if you need it.

Due to our high engineering standards and thorough quality control, HP products have an excellent reputation for low maintenance. Should you require support, HP Personal Computer Dealer repair centers provide service on most of the HP products they sell, including The PORTABLE. They are authorized by HP to perform warranty, contract, and other services. Dealers go through complete service training and keep current with self-paced courses.

Our message to you is: We're there when you need us.

HP PERIPHERALS

Disc Drive

The HP 9114A double-sided, 3½-inch, battery-powered microfloppy disc drive, 710-Kbyte capacity

Printers

ThinkJet, The Personal Printer, ink-jet technology, HP-IL interface (HP 2225B)

HP 82905B dot-matrix printer, option 448 with HP-IL interface

HP 2932A dot-matrix printer with RS-232C interface

HP 2934A dot-matrix printer, with RS-232C interface

HP 2601A daisywheel printer, option 242 with RS-232C interface

Plotters

HP 7470A two-pen graphics plotter, option 003 with HP-IL interface

HP 7470A two-pen graphics plotter, option 001 with RS-232C interface

HP 7475A six-pen graphics plotter, option 001 with RS-232C interface

Interface Converters

HP 82164A HP-IL to RS-232C
HP 82169A HP-IL to HP-IB

Communications

HP 45643A Extended I/O Accessory (HP-IL and Centronics) to tie-in The PORTABLE with your HP 150

HP 82973A HP-IL interface card to tie in The PORTABLE with your IBM PC.

Hayes Smartmodem 1200-baud, high-speed modem

Accessories

HP 13269L leather carrying case (Vinyl carrying case included.)

HP 13269K system carrying case to hold computer, printer, and disc drive

Microprocessor/CPU

Full 16-bit, CMOS 8086, running at 5.33 MHz clock rate

Memory

384K bytes of CMOS ROM
272K bytes of CMOS RAM
    Up to 256K bytes user memory
    Up to 176K bytes electronic disc

Software Built Into ROM

MS-DOS version 2.11
Personal Applications Manager
1-2-3 from Lotus: spreadsheet, graphics, and file management
MemoMaker: word processor
Terminal Emulation: communications and file transfer

Display

16 line x 80 column LCD
128 x 480 pixel, bit-mapped graphics
Keyboard contrast control

Keyboard

Typewriter-style
75 keys, including eight special function keys

Power Supply/Battery Life

Three permanently installed, lead/acid D-cell batteries
16 hours of continuous use on a charge
Over five years of service life

Size/Weight

13" x 10" x 2⅞" (32 cm x 25 cm x 7 cm)
8½ pounds (3.85 kg)

Input/Output

Hewlett-Packard Interface Loop (HP-IL)
Serial Interface (RS 232-C v.24/V.28)

Modem

300-baud direct connect
Auto answer/auto dial
Pulse and tone dial

System Clock/Calendar

January 1, 1980 to December 31, 2039
0.1 second resolution
Alarm and appointment-keeping functions

Temperature Constraints

32°–130°F (0°–55°C) while in storage
32°–115°F (0°–45°C) while in operation

Safety/EMI Approvals

UL Listed, CSA Certified
FCC Class B parts 15 and 68
Passes proposed RTCA standards for use on commercial aircraft

Complies with RTCA docket 160A section 21—radiated emission levels for computing devices. Category B: 150 KHz—30 MHz. Category A/Z: 30 MHz—1.215 GHz. The PORTABLE passes these proposed RTCA standards for use on commercial aircraft.

hp HEWLETT
PACKARD